WHAT IS CLAIMED IS:

1. A hydrocarbon conversion process comprising contacting a hydrocarbon stream with a catalytic composite at hydrocarbon conversion conditions to give a converted product, the hydrocarbon conversion process selected from the group consisting of alkylation of aromatics, alkylation of isoparaffins, transalkylation of aromatics and isomerization of aromatics and the catalytic composite comprises a zeolite selected from the group consisting of UZM-8, UZM-8HS and mixtures thereof: where UZM-8 has a layered framework of at least AlO_2 and SiO_2 tetrahedral units and a composition on an as-synthesized and anhydrous basis expressed by an empirical formula of:

$$M_m^{n+}R_r^{p+}Al_{1-x}E_xSi_yO_z$$

where M is at least one exchangeable cation selected from the group consisting of alkali and alkaline earth metals, "m" is the mole ratio of M to (Al + E) and varies from 0 to about 2.0, R is at least one organoammonium cation selected from the group consisting of quaternary ammonium cations, diquaternary ammonium cations, protonated amines, protonated diamines, protonated alkanolamines and quaternized alkanolammonium cations, "r" is the mole ratio of R to (Al +E) and has a value of about 0.05 to about 5.0, "n" is the weighted average valence of M and has a value of about 1 to about 2, "p" is the weighted average valence of R and has a value of about 1 to about 2, E is an element selected from the group consisting of gallium, iron, boron, chromium, indium and mixtures thereof, "x" is the mole fraction of E and has a value from 0 to about 1.0, "y"

is the mole ratio of Si to (Al + E) and varies from about 6.5 to about 35 and "z" is the mole ratio of O to (Al + E) and has a value determined by the equation:

$$z = (m \bullet n + r \bullet p + 3 + 4 \bullet y)/2$$

and is characterized in that it has the x-ray diffraction pattern having at least the d spacings and intensities set forth in Table A:

Table A

2-θ	d(Å)	I/I_0%
6.40 - 6.90	13.80 – 12.80	w - s
6.95 – 7.42	12.70 – 11.90	m - s
8.33 – 9.11	10.60 – 9.70	w - vs
19.62 – 20.49	4.52 – 4.33	m - vs
21.93 – 22.84	4.05 – 3.89	m - vs
24.71 – 25.35	3.60 – 3.51	w - m
25.73 – 26.35	3.46 – 3.38	m - vs

and UZM-8HS has a three-dimensional framework of at least AlO_2 and SiO_2 tetrahedral units and an empirical composition on an anhydrous basis in terms of mole ratios of the elements of:

$$M1_a^{n+} Al_{(1-x)} E_x Si_{y'} O_{z''}$$

where M1 is at least one exchangeable cation selected from the group consisting of alkali metals, alkaline earth metals, rare earth metals, ammonium ion, hydrogen ion and mixtures thereof, a is the mole ratio of M1 to (Al + E) and varies from 0.05 to about 50, E is an element selected from the group consisting of gallium, iron, boron, chromium, indium and mixtures thereof, x is the mole fraction of E and varies from 0 to about 1.0, n is the weighted average valence of M1 and has a value of about +1 to about +3, y' is the mole ratio of Si to (Al + E) and is greater than about 6.5 and z" is

the mole ratio of O to (Al + E) and has a value determined by the equation:

$$z'' = (a \bullet n + 3 + 4 \bullet y')/2$$

the zeolite characterized in that it has an x-ray diffraction pattern having at least the d-spacings and relative intensities set forth in Table C:

Table C

2-θ	d(Å)	I/I_o%
6.90 - 7.40	12.80 - 11.94	w-vs
8.15 - 8.85	10.84 - 9.98	m-vs
14.10 - 14.70	6.28 - 6.02	w-vs
19.40 - 20.10	4.57 - 4.41	w-s
22.00 - 22.85	4.04 - 3.89	m-vs
24.65 - 25.40	3.61 - 3.50	w-m
25.70 - 26.50	3.46 - 3.36	w-vs

2. The process of Claim 1 where the hydrocarbon conversion process is alkylation of aromatics.

3. The process of Claim 1 where the hydrocarbon conversion process is transalkylation of aromatics.

4. The process of Claim 1 where the hydrocarbon conversion process is isomerization of aromatics and the catalytic composite further comprises at least one platinum group metal.

5. The process of Claim 1 where the hydrocarbon conversion process is alkylation of isoparaffins.

6. The process of Claim 2 wherein the alkylation process comprises monoalkylation of aromatic compounds where an alkylatable aromatic compound is reacted with an olefin under alkylation conditions to provide an alkylated compound.

7. The process of Claim 6 where the aromatic compound is benzene, the olefin is propylene and the alkylated compound is cumene.

8. The process of Claim 6 where the alkylatable aromatic compound is selected from the group consisting of benzene, naphthalene, anthracene, phenanthrene and substituted derivates thereof.

9. The process of Claim 6 where the olefin contains from 6 up to about 20 carbon atoms.

10. The process of Claim 3 where the polyalkylated aromatic compound is a polyisopropyl benzene and the nonalkylated aromatic compound is benzene.

11. The process of Claim 4 where the hydrocarbon stream comprises a non-equilibrium mixture of xylenes and ethylbenzene.

12. The process of Claim 4 where the platinum group metal is platinum and is present from about 0.01 to about 5 mass-% of the catalytic composite on an elemental basis.

13. The zeolite of Claim 1 where the zeolite is thermally stable up to a temperature of about 600°C.

14. The zeolite of Claim 1 where M is selected from the group consisting of lithium, sodium, cesium, strontium, barium and mixtures thereof.

15. The zeolite of Claim 1 where R is selected from the group consisting of diethyldimethylammonium, ethyltrimethylammonium, hexamethonium and mixtures thereof.

16. The zeolite of Claim 1 where "m" is zero.